

AMENDMENTS TO THE CLAIMS

1. (Currently amended) A method for loading a plurality of liquid samples into a plurality of through-hole arrays, the liquid samples residing in wells of a microtiter plate characterized by a well-to-well spacing, the through-hole arrays characterized by a hole spacing that is an integral fraction of the well-to-well spacing of the microtiter plate, the method comprising:

stacking the plurality of through-hole arrays in registration, wherein each of the plurality of through-hole arrays is separated by a distance s , wherein s is a non-zero dimension;

positioning an array of transfer members, each transfer member disposed for drawing liquid from a distinct well of the microtiter plate;

drawing liquid samples from the wells of the microtiter plate to each of the transfer members;

registering the array of transfer members with a subset of through-holes of the through-hole arrays, wherein the array of transfer members is positioned in proximity to an outermost through-hole array; and

applying a pressure to the transfer members to dispense ~~dispensing~~ the liquid samples from the transfer members into through-holes of the through-hole arrays, wherein a fluidic bridge is established between registered holes in the plurality of through-hole arrays;

removing the pressure from the transfer members to break the fluidic bridge;

thereby depositing liquid samples from each transfer member into a plurality of through-holes.

2. (Cancelled)

3. (Original) A method in accordance with claim 1, wherein the step of dispensing the liquid samples from the transfer members includes expelling liquid from a capillary.

4. (Original) A method in accordance with claim 1, wherein the step of dispensing the liquid samples from the transfer members includes expelling liquid from tubing of a pipette.

5. (Original) A method in accordance with claim 1, wherein the step of dispensing the liquid samples from the transfer members includes expelling liquid by means of a syringe.
6. (Original) A method in accordance with claim 1, wherein the step of drawing liquid samples from the wells of the microtiter plate includes drawing liquid into a capillary.
7. (Original) A method in accordance with claim 1, wherein the step of drawing liquid samples from the wells of the microtiter plate includes drawing liquid into tubing of a pipette.
8. (Original) A method in accordance with claim 1, wherein the step of drawing liquid samples from the wells of the microtiter plate includes drawing liquid by means of a syringe.
9. (Previously presented) A method in accordance with claim 1, wherein during the step of dispensing the liquid samples from the transfer members, surface tension draws fluid into the through-holes.
10. (Previously presented) A method in accordance with claim 1, wherein during the step of dispensing the liquid samples from the transfer members, surface tension holds fluid in the through-holes.
11. (Cancelled)
12. (Currently amended) A method in accordance with claim 1 ~~14~~, wherein s is less than the hole spacing of the plurality of through-hole arrays.
13. (Cancelled)
14. (New) A method for loading a plurality of liquid samples into a plurality of through-hole arrays, the liquid samples residing in wells of a microtiter plate

characterized by a well-to-well spacing, the through-hole arrays characterized by a hole-to-hole spacing, the method comprising:

- stacking the plurality of through-hole arrays in registration;
- providing a capillary array having a first end characterized by a center-to-center spacing about equal to the well-to-well spacing and a second end characterized by a center-to-center spacing about equal to hole-to-hole spacing;
- positioning the first end of the of the capillary array in a plurality of the wells of the microtiter plate;
- positioning the second end of the capillary array in a plurality of the wells of a first of the plurality of through-hole arrays; and
- applying a negative pressure adjacent to a last of the plurality of through-hole arrays.

15. (New) A method for loading a plurality of liquid samples into a plurality of through-hole arrays, the liquid samples residing in wells of a microtiter plate characterized by a well-to-well spacing, the through-hole arrays characterized by a hole-to-hole spacing, the method comprising:

- stacking the plurality of through-hole arrays in registration;
- providing a flexible transfer member array having a first end characterized by a center-to-center spacing about equal to the well-to-well spacing and a second end characterized by a center-to-center spacing about equal to hole-to-hole spacing;
- positioning the first end of the of the flexible transfer member array in a plurality of the wells of the microtiter plate;
- positioning the second end of the flexible transfer member array in a plurality of the wells of the through-hole arrays; and
- drawing the array of flexible transfer member through the plurality of wells, thereby loading the plurality of liquid samples into the plurality of through-hole arrays.

16. (New) A method in accordance with claim 15, wherein the flexible transfer member array comprises a shape memory alloy.